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# Giant

YELLOWKNIFE MINES LIMITED

A N N U A L   R E P O R T   1 9 7 9

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## REVIEW IN BRIEF

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	1979	1978
<b>PRODUCTION</b>		
Ore milled, tons	416,256	396,657
Grade of mill feed, ounces per ton	0.206	0.271
Gold recovered, ounces	75,109	95,413
<b>FINANCIAL</b>		
Gross value of production	\$31,129,000	\$22,362,000
Operating income	12,230,000	6,220,000
Exploration expenditures	1,068,000	661,000
Income taxes	3,072,000	1,532,000
Net income	8,315,000	3,731,000
Earnings per share	1.93	0.87
Dividends paid per share	0.60	0.50
Net capital additions	1,245,000	422,000
Working capital at end of year	15,765,000	10,753,000
Average price received per ounce of gold	\$412.00	\$233.00

### ANNUAL MEETING OF SHAREHOLDERS

Wednesday, April 16, 1980 at 11:00 a.m. (E.S.T.)

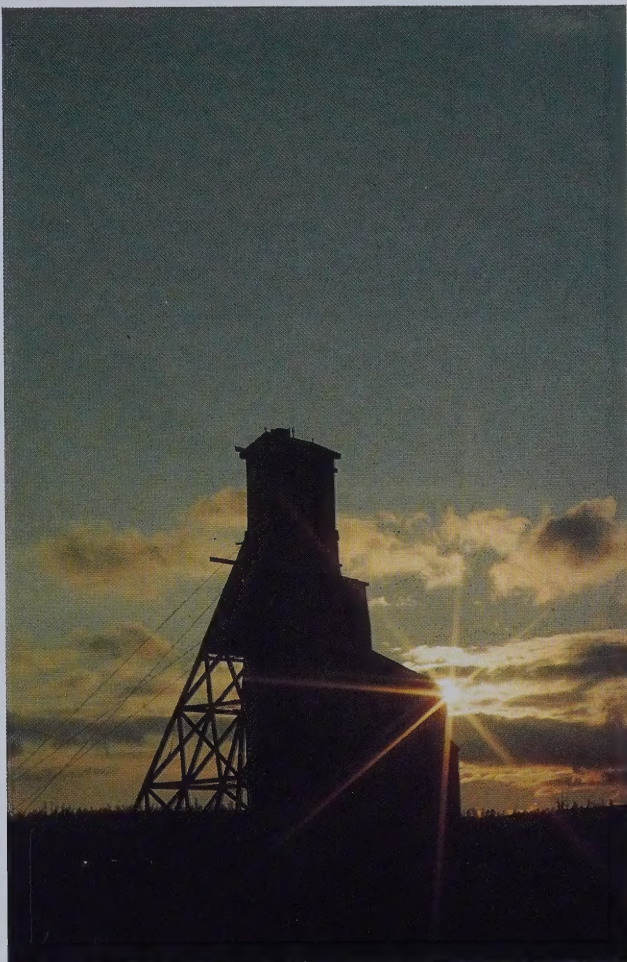
Bay Room, Toronto Harbour Castle Hilton  
Toronto, Canada



**Giant**  
YELLOWKNIFE MINES LIMITED

# 37th Annual Report

*"C" Shaft Headframe*



*Aerial View of Mine Site*



Head Office: P.O. Box 40, Commerce Court West, Toronto, Ontario M5L 1B4  
Mine Office: Yellowknife, N.W.T. X0E 1H0

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## **DIRECTORS**

A. J. ANDERSON  
Consulting Mining Engineer

\*C. R. ARCHIBALD, Q.C.  
Partner, Law Firm of  
Strathy, Archibald & Seagram

D. J. EMERY  
President and Managing Director  
of the Corporation

E. L. HEALY  
President, Mine-Met Consultants  
of Canada Limited

W. F. JAMES  
Consulting Geologist

J. D. KRANE  
Vice-President Corporate Affairs  
and Secretary  
Falconbridge Nickel Mines Limited

G. P. MITCHELL  
Vice-President of the Corporation  
and Senior Vice-President, Exploration  
Falconbridge Nickel Mines Limited

\*P. L. MUNRO  
President and Managing Director  
United Keno Hill Mines Limited

\*J. D. STREIT  
Geologist, President  
Yellowknife Bear Mines Ltd.

\*Members of the Audit Committee

## **OFFICERS**

D. J. EMERY  
President and Managing Director  
of the Corporation

G. P. MITCHELL  
Vice-President of the Corporation  
and Senior Vice-President, Exploration  
Falconbridge Nickel Mines Limited

J. M. DaCOSTA, Q.C.  
Secretary of the Corporation  
and other Companies  
associated with  
Falconbridge Nickel Mines  
Limited

N. H. WITHERELL  
Treasurer of the Corporation and  
Treasurer  
Falconbridge Nickel Mines Limited

J. O. KACHMAR  
Controller of the Corporation and  
other Companies associated with  
Falconbridge Nickel Mines Limited

## **CONSULTANTS**

F. G. T. PICKARD, Metallurgical

L. A. WRIGGLESWORTH, Geological

W. B. G. WALKER, Geological

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## **TRANSFER AGENTS AND REGISTRARS**

CROWN TRUST COMPANY  
P.O. Box 38, 1 First Canadian Place  
Toronto, Ontario M5X 1G4

REGISTRAR AND TRANSFER COMPANY  
55 Water Street, New York, N.Y. 10041

## **BANKERS**

CANADIAN IMPERIAL BANK OF COMMERCE  
Toronto, Ontario

## **AUDITORS**

THORNE RIDDELL & CO.  
Toronto, Ontario

## **SOLICITORS**

STRATHY, ARCHIBALD & SEAGRAM  
Toronto, Ontario

## **EXCHANGE LISTINGS**

Toronto Stock Exchange  
American Stock Exchange

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# REPORT OF THE DIRECTORS

To the Shareholders:

Your Board of Directors is pleased to submit the 37th Annual Report and Consolidated Financial Statements for 1979. The Corporation's operations consist of mining and treatment of gold ores at its Yellowknife property located in the Northwest Territories, as well as those of its subsidiaries Lolor Mines Limited and Supercrest Mines Limited, owned 87.5 percent and 50 percent respectively.

Mining operations commenced in 1948. Since that time 10.5 million tons of ore have been extracted and 4,940,000 ounces of gold produced. Net metal revenues have totalled \$309,043,000 and net earnings \$63,419,000 of which \$53,690,000 have been distributed as dividends.

In addition to its normal mining operations, the Corporation is exploring actively in the mine area, as well as elsewhere in the Northwest Territories, other parts of Canada and recently in the states of Nevada and Utah.

## EARNINGS

The most significant earnings factor for your Corporation in 1979 was the increase in the average price received for gold from \$233\* per ounce in 1978 to \$412 per ounce in 1979. This increase, which in part reflects continued weakness in the Canadian dollar in terms of U.S. funds, resulted in record earnings of \$8.3 million or \$1.93 per share, despite the lower bullion production and increased costs reported below. In 1978 earnings were \$3.7 million or 87 cents per share. Dividends totalling 60 cents per share were paid in 1979 compared with 50 cents in the prior year.

The gold 'upswing' of 1978 continued through 1979. There was a spectacular increase in price from a low of \$217 (U.S.) per ounce in late January 1979 to \$512 (U.S.) per ounce at year end. Through 1979 the advancing price of gold reflected increased demand caused by uncertainty about the stability of the U.S. dollar on foreign exchange markets, increasing concern over the high level of inflation in the United States and also in other developed countries, and an uneasiness over the Middle East situation and its effect on the supply and price of oil. These factors point to continued strong prices and a favourable outlook for earnings in 1980.

As can be seen in the accompanying tables that summarize production history and ore reserves of the Corporation, the level of earnings and mine life are determined essentially by the price received for gold.

## PRODUCTION

During 1979, operations were affected by a two-week shutdown of the open pits in February due to extreme cold weather and a 10-day planned shutdown of the roaster in September because of metallurgical difficulties in treating lower grade ores. Despite these setbacks, tonnage treated by Giant and its subsidiaries rose from 397,000 tons in 1978 to 416,000 tons. Open pits contributed 29 percent of the mill feed versus 27 percent in 1978.

Grade of ore treated decreased from 0.271 ounce gold per ton to 0.206 ounce gold per ton as a result of deliberately mining lower grade ores in response to the higher gold price, and also because of poorer than expected grades from some of the underground workings during the first

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\* All amounts are expressed in Canadian currency except as otherwise designated.



quarter. With lower grades, bullion output declined from 95,413 ounces in 1978 to 75,109 ounces. Recovery dropped from 88.75 percent to 87.76 percent due to the difficulties in treating lower grade ores.

Development work, in connection with both stope preparation and exploration, continued to occupy top priority in the mine department. Fully 87 percent of the underground ore was obtained from high productivity long hole stopes. In spite of greater lateral development than in 1978 and more stope preparation, mining costs were held in check through the more efficient long hole method.

## OPERATING AND CAPITAL COSTS

Consolidated operating costs increased from \$15,963,000 or \$40.24 per ton in 1978 to \$18,691,000 or \$44.90 per ton in 1979. Overall expenditures were up due to escalation in power, fuel and other supply costs, plus increased underground development work and heavy maintenance expenditures on surface and underground ore hauling equipment. Despite conservation measures that reduced electrical energy requirements by two percent, power costs increased 26 percent because of higher power rates.

Capital expenditures were \$1,245,000 compared with \$422,000 in 1978. The major outlays were to increase productivity underground, in the pits and in the mill through purchase of new production or processing equipment. Expenditures were also made to improve safety and health and the environment.

## SUMMARY OF 1979 RESULTS BY QUARTERS

The following is a consolidated statement of earnings for each quarter of 1979.

OPERATING RECORD	Three Months Ended				Total
	March 31	June 30	Sept. 30	Dec. 31	
Ore milled, tons .....	103,449	110,859	97,005	104,943	416,256
Average per day, tons .....	1,149	1,218	1,054	1,141	1,140
Average millheads per ton .....	0.206	0.226	0.202	0.188	0.206
Gold recovered, ounces .....	18,638	22,145	17,094	17,232	75,109
Silver recovered, ounces .....	2,809	5,318	3,425	2,821	14,373
STATEMENT OF EARNINGS (000 omitted)					
Revenue from metal production (less marketing charges) ..	\$ 5,503	\$ 7,269	\$ 7,365	\$ 10,784	\$ 30,921
Operating and administrative expenses .....	4,291	4,639	4,188	5,573	18,691
Operating income .....	1,212	2,630	3,177	5,211	12,230
Depreciation and amortization .....	190	184	199	(149)	424
Exploration expenses .....	211	172	277	408	1,068
	401	356	476	259	1,492
	811	2,274	2,701	4,952	10,738
Non-operating revenue .....	236	171	267	260	934
	1,047	2,445	2,968	5,212	11,672
Income taxes .....	356	681	963	1,072	3,072
	691	1,764	2,005	4,140	8,600
Minority interest in earnings of subsidiary companies .....	93	60	(21)	153	285
Earnings for the period .....	\$ 598	\$ 1,704	\$ 2,026	\$ 3,987	\$ 8,315
Earnings per share .....	\$ .14	\$ .40	\$ .47	\$ .92	\$ 1.93
Average price per ounce of gold produced .....	\$ 296.00	\$ 328.00	\$ 431.00	\$ 626.00	\$ 412.00

Note: (1) Revenue from metal production at December 31, 1979 includes unsold gold.

— ounces .....

— valuation/ounce .....

(2) Canadian/U.S. dollar exchange rate at December 31, 1979 .....



## **ORE RESERVES**

An estimation of ore reserves is made at the end of each year using the prevailing price of gold and anticipated operating costs. As of December 31, 1979, the reserves were estimated at 2,054,000 tons at a grade of 0.21 ounce of gold per ton, compared with 1,216,000 tons at a grade of 0.27 ounce of gold per ton at December 31, 1978. This represents an increase of 1,255,000 tons after mining 416,000 tons during the year 1979. Only 137,000 tons of this increase can be considered new tons attributable to recent diamond drilling in the "A" shaft area. The remainder represents low grade additions to existing ore bodies or re-evaluation of previously drilled blocks of low grade in light of the higher gold price and lower cost mining methods now being used. If the price remains high, it is anticipated that further additions of low grade ore will be possible.

Development of ore reserves at the Giant mine has required extensive diamond drilling because of the complex geological structure and irregular distribution of ore zones, making it difficult to predict continuity for mining purposes. With higher gold prices, efforts are being made to re-assess all old drill information. The Corporation is now benefiting from the extensive drill hole coverage of past years.

Most of the drilling to date has been above the 2000 level as deeper work has been unrewarding. The deep drilling program below the 2000 level continued in 1979, but difficulties were encountered in maintaining straight holes. Two long holes were drilled but one had to be abandoned because of deviation without reaching the target area. The other cut several zones of shearing but no gold values. The program will be continued in 1980 as potential for ore at depth still exists.

At "A" shaft, follow-up drilling from the 575 foot level was discontinued in favour of drilling in higher potential parts of the mine. Drilling continued between the 1500 and 2000 levels where possibilities for additional reserves were indicated. An intermediate heading is being driven out on the 1650 level to permit more detailed drill coverage of the area.

## **MINING AND TREATMENT PLANT OPERATIONS**

### **Giant Mine**

Output from the Giant mine was 391,000 tons at a grade of 0.203 ounce gold per ton compared with 365,000 tons at 0.262 ounce gold per ton in 1978. Open pits provided 31 percent of the Giant total or 29 percent of the combined output from the three properties versus 27 percent in 1978. Because of the lower grade of ore treated, bullion output dropped from 85,049 ounces to 69,570 ounces; however, with the higher gold price, operating income increased from \$5,475,000 to \$11,202,000.

Operating costs were \$44.25 per ton, up from the \$38.79 in 1978 reflecting the increased maintenance and supply expenses, and development work.

Lateral advance totalled 16,139 feet, an increase over the 10,214 feet in 1978, while raising declined from 3,121 feet to 2,806 feet. Diamond drilling totalled 66,053 feet (including 12,946 feet on surface), a decrease from the 85,485 feet in the prior year.

Giant ore reserves increased from 1,173,000 tons to 2,007,000 tons, an addition of 834,000 tons, although grade decreased from 0.27 ounce gold per ton to 0.20 ounce gold per ton through inclusion of lower grade material. With 391,000 tons mined in 1979, the overall increase in Giant reserves was approximately 1,225,000 tons.

### **Lolor Mine**

Production from Lolor was 11,800 tons at a grade of 0.202 ounce gold per ton compared with 10,600 tons at 0.323 ounce gold per ton in 1978.



Unit costs increased slightly from \$44.33 per ton to \$45.11 per ton. Despite lower bullion production because of lower grades, revenues increased as a result of the improved gold price and operating income rose from \$275,000 in 1978 to \$447,000.

There was no lateral advance but 120 feet of raising was completed versus 66 feet of lateral advance and 131 feet of raising in the prior year. Diamond drilling totalled 1,975 feet in three holes. Nothing of significance was located.

Ore reserves increased from 16,000 tons at 0.25 ounce gold per ton at December 31, 1978 to 22,000 tons at 0.23 ounce gold per ton as of December 31, 1979. Including the tons mined during the year, there was a net increase of 18,000 tons.

### **Supercrest Mine**

Mining was carried out at a reduced rate as part of the production plan. Throughput was close to forecast at 13,500 tons grading 0.294 ounce gold per ton compared with 21,200 tons at 0.391 ounce gold per ton in 1978.

Operating costs were maintained at \$63.63 per ton versus the \$63.61 of 1978 as a result of obtaining about 60 percent of the production from one long hole stope. These costs are high, however, due to the effect of fixed costs on low tonnage and substantial expenditures for surface diamond drilling and drifting on the 1500 level to open up an ore reserve block below present working levels. Despite the decrease in grade of ore treated and lower bullion production, operating income increased from \$471,000 to \$581,000 due to the higher gold price.

Development work was minimal as in the prior year. The drift being extended from Giant on the 1500 level was advanced 2,479 feet versus 758 feet in 1978. The heading is somewhat behind schedule because of difficulties in obtaining experienced crews. Another 974 feet is required to reach the Supercrest boundary and approximately 1,000 feet must then be driven to reach the reserve area.

Diamond drilling totalled 13,411 feet, all from surface, with 55 percent of the footage drilled in 25 holes near the Akaitcho shaft and the remainder in 17 holes along the Lynx/Supercrest boundary about one mile north of present workings. Most holes cut ore and sub-ore values over narrow widths and have indicated ore potential in both locations. Two small lenses were located near the shaft that might be available from underground workings. In the area one mile to the north, a mineralized zone has been outlined over a horizontal distance of about 500 feet and from 100 feet below surface to a depth of about 400 feet. The zone is generally less than five feet in width so that indicated grades will have to be reduced for expected mining dilution. Additional surface drilling will be required before engineering studies can be done to determine the mining possibilities in both areas.

Reserves decreased from 27,000 tons at 0.37 ounce gold per ton to 25,000 tons at 0.33 ounce gold per ton. Taking into consideration tons mined during the year, the net increase was 11,000 tons. This reserve includes ore to be recovered from the 1500 level, but not the zones outlined by surface drilling as these are still too poorly defined to calculate accurate tonnage or grade.

### **Treatment Plant Operations**

Operations of the mill and roaster were adversely affected by having to treat lower grade ores. These ores are deficient in sulphur, the natural fuel necessary for proper functioning of the roaster. The lower sulphur content combined with power outages affected process continuity and in September the roaster had to be shut down for 10 days to permit cleaning out of the bed and repairing of tuyeres. Research is continuing to determine how best to adapt the roaster to the lower grade ores now being mined.

As a result of the roaster difficulties and problems caused by lower grades in the flotation section, overall recovery dropped from 88.75 percent in 1978 to 87.76 percent. In an effort to



improve recoveries, an expansion of the carbon plant was undertaken to ensure better recovery of gold from dust produced by the roaster.

A program of research and development and pilot plant work was carried out to produce a marketable grade of arsenic trioxide as a byproduct. Further investigation is required before making a final commitment to install a production facility.

### **Environmental Control**

In October 1979, Environment Canada announced a new standard for emissions in gold roasting. Due to improvements in operating procedures, maintenance and instrumentation, your Corporation is able to meet the standard consistently.

Efforts are being made to meet new tailings effluent quality standards that come into effect in May 1981 under the Northwest Territories Water Board Licence. An electro-chemical device is being tested at the mine to permit re-use of all cyanide solutions.

All tailings dams were raised during the year and a new tailings line installed. It is expected that no major construction for tailings retention will be required for three years.

Continued progress was made in the area of occupational health through purchases of personal protective equipment, improvements to employee eating and change facilities, monitoring of employee health, and an investigation of filtering systems for the Cottrell and Baghouse buildings.

## **EXPLORATION**

Exploration was done in the mine area, on the Northbelt and Lynx properties, and also on outside properties more remote from the mine site. Expenditures increased from \$661,000 in 1978 to \$1,068,000, with emphasis as in the previous year on gold in the mine area and on precious metals, uranium and base metals elsewhere.

### **Mine Area**

Diamond drilling continued on the Lynx claims north of the mine. Sixteen holes were completed for a total of 3,379 feet in conjunction with the program on the adjacent Supercrest property. Most holes cut ore or sub-ore values over narrow widths. Drill information is currently being assessed to determine whether there are mineable tonnages.

On the Northbelt claims, two geophysical surveys were conducted early in 1979 to better define two airborne input anomalies obtained in prior work. Eleven drill holes, totalling 7,460 feet, were completed to test an EM anomaly and a shear zone in one area and for a possible extension of the Giant shear zone at the south end of the property. Two holes showed the anomaly to be the result of a pyrite-rich, graphitic shale. The remaining holes failed to encounter any gold values. Exploration of the property will continue in 1980.

### **Outside Exploration**

Outside exploration expenditures were \$811,000 versus \$414,400 in 1978. Twenty-seven offerings were considered; 22 were rejected and of the remainder, one was explored and rejected and the others have yet to be examined. Nine projects were undertaken of which three were wholly owned, three were options and three were joint ventures. Six were in the Northwest Territories and one each in Quebec, Newfoundland and Nevada. Work planned for the Yumack base metal property in the Yukon was held in abeyance in favour of the other projects.

The Hermitage joint venture base metal project in Newfoundland was continued with 22 holes drilled for 6,278 feet near old showings in the area. Some encouragement was obtained and



further geology, geophysics, geochemistry and drilling is planned for 1980 to fully test the mineralized area and to delineate additional targets.

Work continued on several uranium searches. The project along the edge of the Precambrian Shield west of Yellowknife was abandoned, but an option was taken out on a possible uranium occurrence about 93 kilometers northwest of Yellowknife near the main highway. Areas of anomalous radioactivity were located by a radon survey and the most prominent was tested by a diamond drilling with negative results. The option was dropped and claims returned to the owners.

An airborne radiometric and electromagnetic survey was carried out on the Ellice River sandstone basin located 560 kilometers northeast of Yellowknife. The geology of the area is similar to that of the Athabaska basin in Saskatchewan where high grade uranium deposits have been found. The airborne work was followed by ground geological and geophysical surveys. Results to date indicate that further work should be done in the area.

A gold property located 248 kilometers northeast of Yellowknife was optioned. Four drill holes were completed for 1,211 feet but results were disappointing and the option has been dropped. Another gold property was optioned, 384 kilometers north of Yellowknife, where ore grade assays had been obtained in previous work. Geological mapping and prospecting of the claims showed the host rock to have limited extent and the claims were returned to the vendor.

Claims were staked covering a gossan zone and a magnetic iron formation at Amacher Lake, 109 kilometers northeast of Yellowknife in a possible gold area. No significant values were obtained in prospecting and reconnaissance mapping of the area, and further work is not planned for the area. On Wilson Island, 96 kilometers southeast of Yellowknife, prospecting was carried out for gold deposits because of the geologic similarity and proximity to the Outpost Islands where gold, tungsten and copper were mined in the early 1940's. Results were negative and no further work is planned for 1980.

Two diamond drill holes, totalling 1,262 feet, were completed on joint venture claims in Clermont Township, Quebec as a follow-up on earlier drilling that encountered base metal sulphides across mineable widths. No additional sulphides were encountered and further work on the property is now doubtful.

During the year, Giant Yellowknife and United Keno Hill Mines Limited incorporated a new company named "Arctic Precious Metals, Inc." to explore for gold and silver in Nevada and Utah. The first year's work was one of ground selection and property acquisition. At year end, one property of 47 claims had been optioned and negotiations were ongoing for two other properties.

## **SUDBURY BASIN DIVISION**

A mineral inventory of the Sudbury Basin lead/zinc/copper property near Sudbury, Ontario was completed and showed that there are higher grade portions of the deposit that may be mineable using present day metallurgical technology.

Nine diamond drill holes were completed for a total of 6,101 feet between October and mid-December to provide fresh core samples for metallurgical investigation during 1980. If results of the investigation are favourable, a full scale metallurgical test involving a pilot plant will be required. As the shaft workings are flooded, this would require expensive dewatering or much larger diameter diamond drilling to obtain sufficient samples. A decision on the pilot plant phase of the project will not be made until results of the diamond drill core metallurgical work has been completed.

## **GENERAL**

Labour turnover was 79 percent compared with 106 percent in 1978. The number of employees increased from 338 to 342.

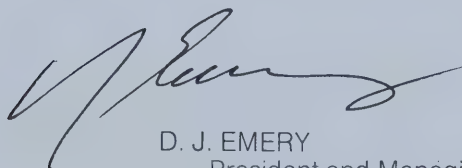


In order to counteract effects of inflation and bring wages at Giant closer to neighbouring mines, the Corporation advanced the wage increase due April 1, 1979 under the Collective Agreement to February 1, and effective April 1 introduced an "economic adjustment float" of 35¢ an hour. Staff salaries were also adjusted in mid-year. The Collective Agreement with Local No. 4 of the Canadian Association of Smelter and Allied Workers expires on April 1, 1980.

In the area of safety and health, the Corporation obtained the services of an independent consultant from the International Mine Safety Auditing Corporation to perform a safety audit. Follow-up work is being done on his findings. While there were no serious injuries during the year, there was an increase in the number of less serious, but nevertheless disabling injuries compared with the prior year.

The Directors wish to acknowledge the conscientious efforts of all employees under the direction of the General Manager, Mr. W. A. Moore, for the accomplishments of 1979. In particular they have been gratified to see an increase in throughput despite weather, power and roaster problems. Important improvements in environmental control and occupational health matters also merit special recognition.

On behalf of the Board,



D. J. EMERY  
President and Managing Director

Toronto, Ontario  
February 25, 1980

The shares of the Corporation are listed and traded on the Toronto and American Stock Exchanges, the latter being the principal market. The sale prices and dividends paid for the following quarterly periods are as tabulated below.

1979					1978				
		High	Low	Dividends Paid per Share in Canadian Funds			High	Low	Dividends Paid per Share in Canadian Funds
March	31	U.S.\$11¼	U.S.\$8⅞	15 cents	March	31	U.S.\$13⅞	U.S.\$ 9¾	10 cents
June	30	11½	8⅞	15 cents	June	30	11⅞	9⅞	10 cents
September	30	13¾	8⅞	15 cents	September	30	14⅞	11⅞	10 cents
December	31	15⅞	9½	15 cents	December	31	13¾	7⅞	20 cents



## OPERATIONS AND FINANCIAL SUMMARY

	1979	1978	1977	1976	1975
<b>Giant</b>					
Ore milled, tons . . . . .	391,038	364,945	393,178	393,730	341,761
Gold recovered, ounces . . . . .	69,570	85,049	87,755	93,378	81,246
<b>Lolor</b>					
Ore milled, tons . . . . .	11,765	10,553	7,663	5,877	18,338
Gold recovered, ounces . . . . .	2,080	3,028	2,116	1,352	4,270
(87½ per cent owned by Giant Yellowknife Mines Limited)					
<b>Supercrest</b>					
Ore milled, tons . . . . .	13,453	21,159	45,351	28,547	31,870
Gold recovered, ounces . . . . .	3,459	7,336	16,272	11,984	12,921
(50 per cent owned by Giant Yellowknife Mines Limited)					
<b>Consolidated</b>					
Ore milled, tons . . . . .	416,256	396,657	446,192	428,154	391,969
Average tons per day . . . . .	1,140	1,087	1,222	1,173	1,074
Calculated millheads . . . . .	0.21	0.27	0.27	0.28	0.29
(oz. gold per ton)					
Mill recovery, per cent . . . . .	87.76	88.75	87.73	88.21	87.76
Total recovery					
Gold, ounces . . . . .	75,109	95,413	106,143	106,714	98,437
Silver, ounces . . . . .	14,373	24,778	22,809	25,157	21,473
<b>Consolidated Financial Summary</b>					
Net value of production . . . . .	\$ 30,921,000	\$ 22,183,000	\$ 17,299,000	\$ 12,991,000	\$ 15,378,000
Operating and administrative costs . . . . .	18,691,000	15,963,000	12,908,000	12,184,000	13,059,000
Operating income before the undernoted items . . . . .	12,230,000	6,220,000	4,391,000	807,000	2,319,000
Depreciation, depletion and amortization . . . . .	424,000	724,000	888,000	711,000	813,000
Exploration expenses . . . . .	1,068,000	661,000	341,000	522,000	1,237,000
Operating profit . . . . .	10,738,000	4,835,000	3,162,000	(426,000)	269,000
Income from investments . . . . .	(934,000)	(627,000)	(468,000)	(433,000)	(690,000)
Income taxes . . . . .	3,072,000	1,532,000	838,000	99,000	394,000
Minority interest . . . . .	285,000	199,000	341,000	94,000	260,000
Net Income (loss) . . . . .	\$ 8,315,000	\$ 3,731,000	\$ 2,451,000	\$ (186,000)	\$ 305,000
Earnings (loss) per share . . . . .	\$1.93	.87	.57	(.04)	.07
Dividends paid per share . . . . .	.60	.50	.15	.10	.40
Working capital . . . . .	\$ 15,765,000	\$ 10,753,000	\$ 8,838,000	\$ 6,527,000	\$ 7,803,000
Average price per ounce of gold . . . . .	\$ 412.00	\$ 233.00	\$ 164.00	\$ 122.00	\$ 157.00
Operating and administrative costs per ton . . . . .	\$ 44.90	\$ 40.24	\$ 28.93	\$ 28.46	\$ 33.32

## TABLES SHOWING YEAR END ESTIMATES OF ORE RESERVES (000 tons)

	1979		1978		1977		1976		1975		1974	
	Tons	Grade Oz. Gold per ton	Tons	Grade Oz. Gold per ton	Tons	Grade Oz. Gold per ton	Tons	Grade Oz. Gold per ton	Tons	Grade Oz. Gold per ton	Tons	Grade Oz. Gold per ton
<b>Giant:</b>												
Active Stopes . . . . .	1,412	0.20	790	0.28	460	0.36	609	0.34	1,137	0.33	1,453	0.33
Other Developed Ore . . . . .	312	0.21	135	0.29	283	0.30	406	0.36	260	0.33	266	0.32
Open Pits . . . . .	283	0.21	248	0.23	202	0.32	412	0.28	352	0.30	453	0.30
Total Giant . . . . .	2,007	0.20	1,173	0.27	945	0.33	1,427	0.33	1,749	0.32	2,172	0.32
<b>Lolor:</b>												
Active Stopes . . . . .	15	0.22	16	0.25	18	0.39	22	0.39	76	0.34	94	0.32
Other Developed Ore . . . . .	7	0.26	—	—	—	—	—	—	—	—	—	—
Total Lolor . . . . .	22	0.23	16	0.25	18	0.39	22	0.39	76	0.34	94	0.32
<b>Supercrest:</b>												
Active Stopes . . . . .	13	0.31	15	0.39	29	0.44	56	0.47	125	0.46	134	0.47
Other Developed Ore . . . . .	12	0.35	12	0.35	12	0.35	—	—	—	—	—	—
Total Supercrest . . . . .	25	0.33	27	0.37	41	0.41	56	0.47	125	0.46	134	0.47
Total developed ore at year end	2,054	0.21	1,216	0.27	1,004	0.34	1,505	0.34	1,950	0.33	2,400	0.33



# People at Work







YELLOWKNIFE MINES LIMITED

(Incorporated under the laws of Ontario)  
and its subsidiary companies

## CONSOLIDATED BALANCE SHEET AS

### ASSETS

	1979	1978
	(000's)	(000's)
<b>CURRENT ASSETS</b>		
Cash and short term bank deposits	\$ 4,367	\$ 6,648
Marketable securities, at cost which approximates market	3,520	2,508
Bullion (note 2)	10,052	2,975
Accounts and accrued interest receivable	267	175
Supplies	1,778	1,400
Prepaid expenses and deposits	33	38
	<u>20,017</u>	<u>13,744</u>
<b>FIXED ASSETS</b>		
Property, machinery and equipment, at cost	19,526	18,317
Less accumulated depreciation	17,330	16,942
	<u>2,196</u>	<u>1,375</u>
Mining claims and properties, at cost less depletion	542	542
	<u>2,738</u>	<u>1,917</u>
<b>OTHER ASSETS</b>		
Shares in and advances to other mining companies, at cost less amount written off	147	147
	<u>\$ 22,902</u>	<u>\$ 15,808</u>

### AUDITORS' REPORT

To the Shareholders of  
GIANT YELLOWKNIFE MINES LIMITED

We have examined the consolidated balance sheet of Giant Yellowknife Mines Limited as at December 31, 1979 and 1978 and the consolidated statements of income, retained earnings and changes in financial position for the years then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at December 31, 1979 and 1978 and the results of its operations and the changes in its financial position for the years then ended in accordance with generally accepted accounting principles applied on a consistent basis.

Toronto, Canada  
January 25, 1980

*Thorne Liddell & Co.*  
Chartered Accountants

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS December 31, 1979 and 1978

#### 1. ACCOUNTING POLICIES

The consolidated financial statements of the company have been prepared by management in accordance with accounting principles generally accepted in Canada, consistently applied. For the purposes of these statements, accounting policies are in conformity, in all material respects, with accounting policies generally accepted in the United States. The significant accounting policies followed by the company are summarized hereunder to facilitate review of the consolidated financial statements.

##### (a) Basis of consolidation

The consolidated financial statements include the accounts of Lolor Mines Limited and Supercrest Mines Limited of which the company holds approximately 87½% and 50% respectively of the outstanding common shares.



AT DECEMBER 31, 1979 AND 1978

## LIABILITIES

	1979	1978
<b>CURRENT LIABILITIES</b>		
Accounts payable and accrued liabilities .....	\$ 1,843	\$ 1,606
Income taxes payable .....	1,784	1,171
Government royalties payable .....	569	214
Dividends payable .....	56	
	<u>4,252</u>	<u>2,991</u>
<b>MINORITY INTEREST</b>		
Interest of minority shareholders in subsidiary companies .....	671	571

## SHAREHOLDERS' EQUITY

<b>CAPITAL STOCK</b>		
Authorized — 4,500,000 shares without par value		
Issued — 4,303,050 shares .....	5,700	5,700
<b>CONTRIBUTED SURPLUS</b> .....	2,637	2,637
<b>RETAINED EARNINGS</b> .....	9,642	3,909
	<u>17,979</u>	<u>12,246</u>
	<u>\$ 22,902</u>	<u>\$15,808</u>

Approved by the Board.

 Director

 Director

- (b) Revenue recognition  
Bullion is valued at estimated net realizable value and revenue is recorded in the accounts on completion of production.
  - (c) Supplies  
Stores and operating supplies are valued at the lower of average cost and replacement cost.
  - (d) Fixed assets  
Fixed assets are accounted for as follows:
    - (i) all fixed assets are recorded at cost;
    - (ii) depreciation on property, machinery and equipment is provided for on the unit of production basis;
    - (iii) the unamortized balance of mining claims and properties relate to the non-producing Sudbury Basin land and mining claims and land in the Town of Yellowknife;
    - (iv) repairs and maintenance expenditures are charged against earnings, major betterments and replacements are capitalized; and
    - (v) upon sale or abandonment the cost of the fixed assets and related accumulated depreciation or depletion are removed from the accounts and any gains or losses thereon are taken into earnings.
  - (e) Exploration  
Exploration costs incurred to the date of establishing that a property has reserves which have the potential of being economically recoverable are charged against earnings.
  - (f) Retirement plans  
The cost of retirement plans are charged against earnings in the year premiums or required fundings are payable. Past service costs are being funded over periods of up to ten years.
2. BULLION
- Bullion includes approximately 17,000 troy ounces of gold (1978, 12,000 troy ounces). The estimated net realizable value of bullion on hand has been determined using a value for gold of Cdn. \$585 per ounce (1978, Cdn. \$249 per ounce). Approximately 4,900 troy ounces were settled on January 2, 1980 at Cdn. \$534 per ounce and approximately 5,200 troy ounces were settled on February 2, 1980 at Cdn. \$784 per ounce.
3. RETIREMENT PLANS
- The company maintains retirement plans for its employees. Total pension expense for the year was \$351,000 (1978, \$280,000) including past service costs of \$125,000 (1978, \$111,000). Based on the most recent actuarial evaluations, the present value of unfunded past service costs was approximately \$229,000 at December 31, 1979 (1978, \$392,000). While the company has no legal liability with regard to past service costs, its present intention is to discharge such unfunded past service costs over periods of up to ten years.
4. REMUNERATION OF DIRECTORS AND SENIOR OFFICERS
- Direct remuneration of directors and senior officers, as defined by The Business Corporations Act of Ontario, amounted to \$258,000 (1978, \$204,000).





YELLOWKNIFE MINES LIMITED

(Incorporated under the laws of Ontario)

## CONSOLIDATED STATEMENT OF RETAINED EARNINGS

Years Ended December 31, 1979 and 1978

	1979 (000's)	1978 (000's)
BALANCE AT BEGINNING OF YEAR	\$ 3,909	\$ 2,329
Net income	8,315	3,731
	12,224	6,060
Dividends — 60¢ per share (50¢ in 1978)	2,582	2,151
BALANCE AT END OF YEAR	<u>\$ 9,642</u>	<u>\$ 3,909</u>

## CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION

Years Ended December 31, 1979 and 1978

	1979 (000's)	1978 (000's)
WORKING CAPITAL DERIVED FROM		
Operations	<u>\$ 9,024</u>	<u>\$ 4,654</u>
WORKING CAPITAL APPLIED TO		
Dividends	2,582	2,151
Additions to fixed assets	1,245	422
Dividends to minority shareholders of subsidiary companies	185	166
	<u>4,012</u>	<u>2,739</u>
INCREASE IN WORKING CAPITAL	5,012	1,915
WORKING CAPITAL AT BEGINNING OF YEAR	10,753	8,838
WORKING CAPITAL AT END OF YEAR	<u>\$ 15,765</u>	<u>\$ 10,753</u>



# CONSOLIDATED STATEMENT OF INCOME

Years Ended December 31, 1979 and 1978

	1979 <u>(000's)</u>	1978 <u>(000's)</u>
<b>REVENUE</b>		
Bullion production .....	\$ 31,129	\$ 22,362
Deduct marketing expenses .....	208	179
	<u>30,921</u>	<u>22,183</u>
<b>EXPENSES</b>		
Operating .....	17,749	15,436
Government of Canada royalty .....	579	210
Administrative and corporate .....	363	317
	<u>18,691</u>	<u>15,963</u>
Operating income before the undernoted items .....	12,230	6,220
Depreciation .....	424	458
Amortization of deferred charges .....		266
Exploration expenses .....	1,068	661
	<u>1,492</u>	<u>1,385</u>
Operating income .....	10,738	4,835
Income from investments .....	934	627
	<u>11,672</u>	<u>5,462</u>
Income taxes .....	3,072	1,532
	<u>8,600</u>	<u>3,930</u>
Minority interest in net income of subsidiary companies .....	285	199
NET INCOME .....	<u>\$ 8,315</u>	<u>\$ 3,731</u>
EARNINGS PER SHARE .....	<u>\$1.93</u>	<u>\$ .87</u>



Fiscal Year Ended May 31	Ore Milled Tons	Calculated Mill Heads Oz. Gold Per Ton	Estimated E.G.M.A. Assistance	Net Value of Metals Recovered	Average Price Per Ounce of Gold	Operating Cost	Operating Cost Per Ton
1949	84,886	0.815	\$ 511,020	\$ 1,962,340	\$ 35.00	\$ 1,467,133	\$ 17.28
1950	126,214	0.708	354,326	2,986,457	37.46	1,826,453	14.47
1951	151,814	0.842	267,874	4,158,038	37.35	1,997,073	13.15
June 30							
1952	165,846	0.755	615,000	3,854,137	35.79	2,658,570	16.03
1953	245,559	0.846	680,000	6,012,389	34.20	3,561,546	14.51
1954	275,985	0.785	965,000	6,045,327	34.26	3,704,451	13.42
1955	286,742	0.761	700,000	5,876,857	34.16	3,912,978	13.65
1956	297,582	0.765	120,000	6,235,926	34.76	4,284,385	14.40
1957	309,673	0.795	105,000	6,396,699	33.75	4,234,517	13.67
1958	289,220	0.795	340,000	5,331,448	33.85	3,872,120	13.39
1959	321,002	0.784	280,000	6,397,770	33.81	4,048,047	12.61
June 29							
1960	361,601	0.784	13,687	7,649,230	33.50	4,338,972	12.00
Dec. 31							
1960	181,101	0.795	.....	4,080,679	34.63	2,529,960	13.96
1961	366,515	0.779	.....	8,507,473	35.73	4,755,387	12.97
1962	375,820	0.763	.....	9,445,300	37.56	4,743,728	12.62
1963	388,190	0.713	.....	9,254,173	37.76	4,758,936	12.26
1964	400,606	0.745	.....	10,120,070	37.62	4,789,045	11.95
1965	395,001	0.722	.....	9,565,401	37.68	5,087,109	12.88
1966	384,271	0.652	.....	8,517,823	37.99	5,191,314	13.51
Consolidated							
1967	319,876	0.670	.....	7,204,874	37.99	4,990,864	15.60
1968	374,717	0.634	265,000	8,739,180	41.60	6,005,179	16.03
1969	399,647	0.640	427,000	9,824,021	42.78	7,289,123	18.24
1970	424,774	0.607	1,059,000	8,328,261	36.47	7,483,992	17.62
1971	403,819	0.621	783,000	8,350,188	38.47	7,609,781	18.84
1972	401,272	0.561	.....	11,990,328	59.87	8,506,758	21.20
1973	389,460	0.459	.....	17,054,358	108.00	9,298,649	23.88
1974	328,099	0.355	.....	16,382,316	162.00	11,120,874	33.90
1975	391,969	0.286	.....	15,377,970	157.00	13,059,200	33.32
1976	428,154	0.281	.....	12,991,075	122.00	12,183,586	28.46
1977	446,192	0.271	.....	17,298,657	164.00	12,907,973	28.93
1978	396,657	0.271	.....	22,183,323	233.00	15,962,955	40.24
1979	416,256	0.206	.....	30,920,686	412.00	18,691,219	44.90
	<u>10,528,520</u>	<u>0.608</u>	<u>\$ 7,485,907</u>	<u>\$ 309,042,774</u>	<u>\$ 56.80</u>	<u>\$ 206,871,877</u>	<u>\$ 19.65</u>



# PRODUCTION AND EARNINGS

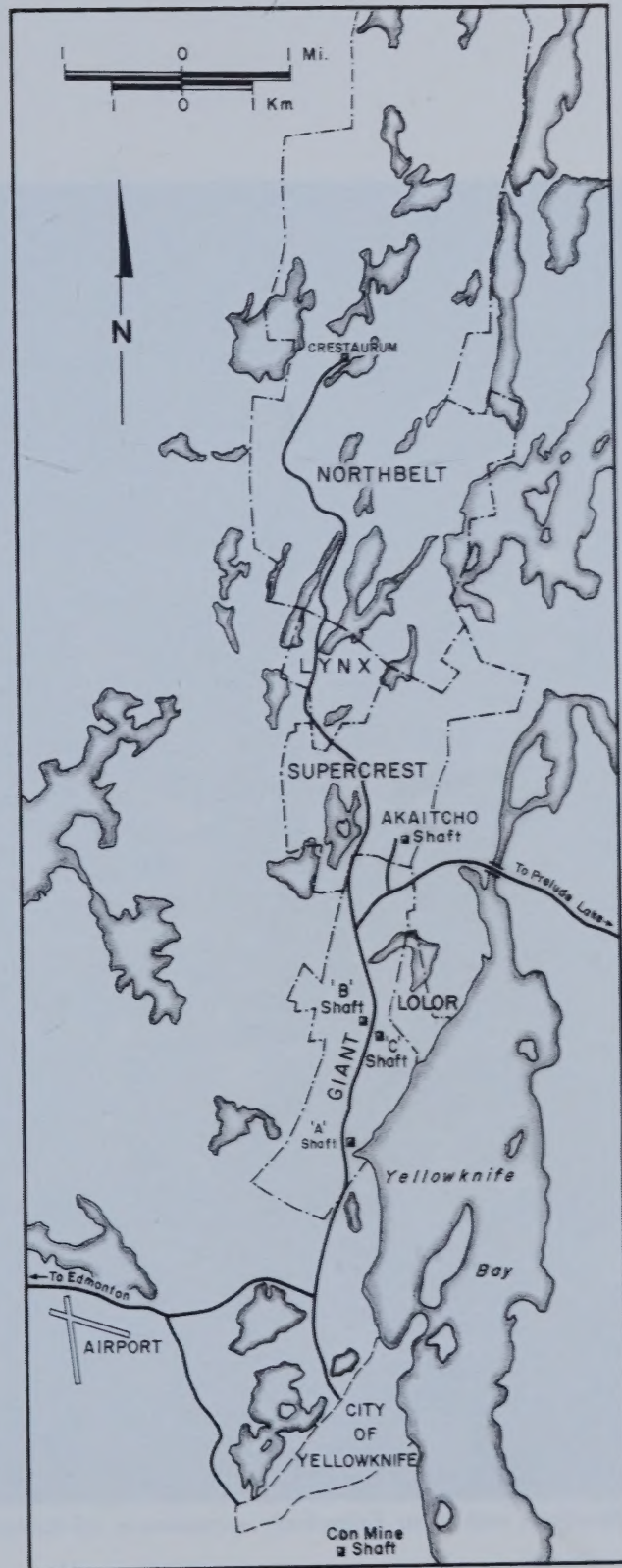
Operating Income	Operating Income Per Ton	Amortization and Outside Exploration	Non- Operating Income	Income Tax	Minority Interest	Net Income	Dividends Declared
\$ 1,006,227	\$ 11.85	\$ 859,567	\$ 6,790	\$ .....	\$ .....	\$ 153,450	\$ .....
1,514,330	12.00	1,039,854	5,237	.....	.....	479,713	.....
2,428,839	16.00	1,254,505	6,334	.....	.....	1,180,668	.....
1,810,567	10.92	1,659,109	7,981	.....	.....	159,439	.....
3,130,843	12.75	1,673,329	4,906	.....	.....	1,462,420	800,000
3,305,876	11.98	1,854,444	22,793	12,000	.....	1,462,225	1,600,000
2,663,879	9.29	1,738,576	14,728	4,000	.....	936,031	1,400,000
2,071,541	6.96	1,354,636	71,219	.....	.....	788,124	1,200,000
2,267,182	7.32	1,355,458	51,901	4,000	.....	959,625	600,000
1,799,328	6.22	1,118,946	59,919	4,000	.....	736,301	1,200,000
2,629,723	8.19	1,096,477	51,060	85,000	.....	1,499,306	1,200,000
3,323,945	9.19	1,243,404	103,858	490,000	.....	1,694,399	1,800,000
1,550,719	8.56	829,368	86,158	.....	.....	807,509	860,541
3,752,086	10.24	1,579,897	160,058	.....	.....	2,332,247	1,936,290
4,701,572	12.51	1,029,749	245,321	(30,477)	.....	3,947,621	3,012,027
4,495,237	11.58	879,752	308,635	.....	.....	3,924,120	4,302,903
5,331,025	13.31	855,679	332,850	.....	.....	4,808,196	4,302,910
4,478,292	11.34	802,319	449,827	580,000	.....	3,545,800	4,302,917
3,326,509	8.65	979,060	308,537	620,000	.....	2,035,986	2,581,752
2,214,010	6.92	948,305	363,849	300,000	(38,458)	1,368,012	1,721,167
2,999,001	8.00	721,400	358,715	720,000	12,267	1,904,049	1,721,168
2,961,898	7.41	837,589	355,624	645,300	(65,372)	1,900,005	1,721,168
1,903,269	4.48	728,703	396,451	266,700	(30,951)	1,335,268	1,721,168
1,523,407	3.77	965,039	302,475	53,000	45,930	761,913	1,721,168
3,483,570	8.68	1,148,922	257,777	621,000	502,039	1,469,386	1,721,168
7,755,709	19.91	986,013	642,789	2,412,000	729,017	4,271,468	2,581,753
5,261,442	16.04	808,239	847,235	1,635,000	786,679	2,878,759	2,151,461
2,318,770	5.92	2,049,556	689,737	394,000	259,594	305,357	1,721,168
807,489	1.89	1,232,972	432,353	99,279	93,748	(186,157)	430,292
4,390,684	9.84	1,228,217	468,025	838,386	340,877	2,451,229	645,458
6,220,368	15.68	1,384,491	626,853	1,532,000	199,544	3,731,186	2,151,525
12,229,467	29.38	1,492,156	934,474	3,072,000	284,667	8,315,118	2,581,830
<u>\$ 109,656,804</u>	<u>\$ 10.42</u>	<u>\$ 37,735,731</u>	<u>\$ 8,974,469</u>	<u>\$ 14,357,188</u>	<u>\$ 3,119,581</u>	<u>\$ 63,418,773</u>	<u>\$ 53,689,834</u>



## LOCATION MAP

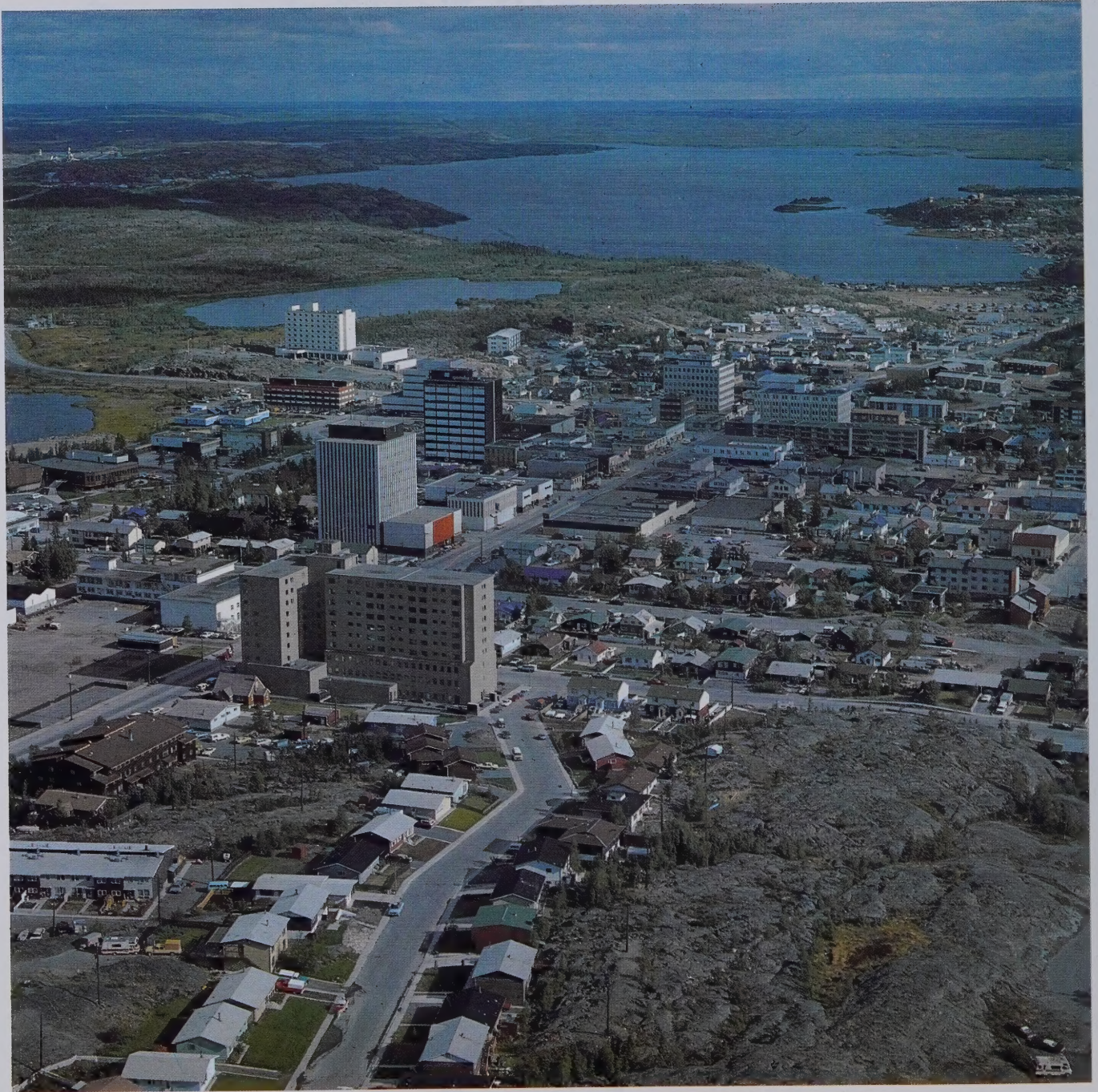
### GIANT YELLOWKNIFE MINES LIMITED





**PROPERTY PLAN**





*City of Yellowknife, with Giant Yellowknife operations in left background.*



### **MINE OPERATING OFFICIALS**

As of January 1, 1980

W. A. MOORE ..... General Manager  
G. A. AALTONEN . . . Assistant to General Manager  
R. RUCKER . . . . . Mine Superintendent  
K. S. MORTON . . . . . Mill Superintendent  
R. W. SPENCE . . . . . Exploration Superintendent  
H. B. BYE . . . . . Master Mechanic  
B. BERGERSEN . . . . . Chief Electrician  
A. YOUNG . . . . . Construction Foreman  
Z. J. KOWAL . . . . . Chief Engineer  
W. MEYER . . . . . Chief Geologist  
A. A. INCH . . . . . Mine Geologist  
W. J. WALSH . . . . . Chief Accountant  
J. W. McKAY . . . . . Purchasing Agent  
R. D. KAPICKI . . . . . Personnel Supervisor  
G. C. PUECH . . . . . Chief Safety Officer

